

# IRON SHIP.

No. 24178 Survey held at Liverpool Date, First Survey 9<sup>th</sup> Oct 73 Last Survey 18<sup>th</sup> May 1874  
On the "Emerdale" Yard Number 47 Master M<sup>r</sup> Porter

TONNAGE under Tonnage Deck } <u>1161.41</u>	ONE, OR TWO DECKED, THREE DECKED VESSEL.	Built at <u>Liverpool</u>
Ditto of Third, Spar, or Awning Deck. } <u>—</u>	SPAR, OR AWNING-DECKED VESSEL.	When built <u>1874</u> Launched <u>2<sup>nd</sup> Apr 74</u>
Ditto of Poop, or Raised Or. Dk. } <u>85.60</u>	HALF BREADTH (moulded) .. .. . <u>18.0</u>	By whom built <u>W. A. Potter &amp; Co</u>
Ditto of Houses on Deck .. . } <u>20.53</u>	DEPTH from upper part of Keel to top of Upper Deck Beams <u>24.2 1/2</u>	Owners <u>J. D. Newton &amp; Co</u>
Ditto of Forecastle } <u>31.57</u>	GIRTH of Half Midship Frame (as per Rule) .. . <u>36.11</u>	Port belonging to <u>Liverpool</u>
Gross Tonnage <u>1299.04</u>	1st NUMBER .. .. . <u>79.125</u>	Destined Voyage <u>Melbourne</u>
Less Crew Space <u>50.37</u>	1st NUMBER, if a THREE-DECKED VESSEL deduct 7 feet .. .. . <u>217.75</u>	If Surveyed while Building, Afloat, or in Dry Dock.
Less Engine Room <u>—</u>	LENGTH .. .. . <u>172.29</u>	
Register Tonnage as cut on Beam } <u>1248.67</u>	2nd NUMBER .. .. . <u>9</u>	
	PROPORTIONS—Breadths to Length .. .. . <u>9</u>	
	Depths to Length—Upper Deck to Keel .. .. . <u>6.125</u>	
	Main Deck ditto .. .. . <u>—</u>	

LENGTH on deck as per Rule 217 9 BREADTH Moulded 36 DEPTH top of Floors to Upper Deck Beams 22 Power of Engines — Horse — N<sup>o</sup>. of Decks with flat laid 2 N<sup>o</sup>. of Tiers of Beams 2

Dimensions of Ship per Register, length 226.4 breadth, 36.3 depth, 21.85

	Inches in Ship	Inches per Rule						
KEEL, depth and thickness	9 x 2 1/2	9 x 2 1/2	9 x 2 1/2	9 x 2 1/2	9 x 2 1/2	9 x 2 1/2	9 x 2 1/2	9 x 2 1/2
STEM, moulding and thickness	8 1/2 x 2 1/2	8 1/2 x 2 1/2	8 1/2 x 2 1/2	8 1/2 x 2 1/2	8 1/2 x 2 1/2	8 1/2 x 2 1/2	8 1/2 x 2 1/2	8 1/2 x 2 1/2
TERN-POST for Rudder do. do. for Propeller	8 1/2 x 2 1/2	8 1/2 x 2 1/2	8 1/2 x 2 1/2	8 1/2 x 2 1/2	8 1/2 x 2 1/2	8 1/2 x 2 1/2	8 1/2 x 2 1/2	8 1/2 x 2 1/2
Distance of Frames from moulding edge to moulding edge, all fore and aft	24	24	24	24	24	24	24	24
FRAMES, Angle Iron, for 3/4 length amidships Do. for 1/2 at each end	5 3	5 3	5 3	5 3	5 3	5 3	5 3	5 3
REVERSED FRAMES, Angle Iron	3 3	3 3	3 3	3 3	3 3	3 3	3 3	3 3
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships thickness at the ends of vessel depth at 3/4 the half-bdth. as per Rule height extended at the Bilges	24 13 1/2 48	24 13 1/2 48	24 13 1/2 48	24 13 1/2 48	24 13 1/2 48	24 13 1/2 48	24 13 1/2 48	24 13 1/2 48
BEAMS, Upper, Spar, or Awning Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron Single or double Angle Iron on Upper edge Average space	9 4 feet	9 4 feet						
BEAMS, Main or Middle Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron Single, or double Angle Iron, on Upper Edge Average space	9 4 feet	9 4 feet						
BEAMS, Lower Deck, Hold or Orlop Single or d'ble Ang. Iron, Plate or Tee Bulb Iron Single or double Angle Iron on Upper Edge Average space	9 4 feet	9 4 feet						
KEELSONS Centre line, single or double plate, box, or intercostal, Plates Rider Plate Bulb Plate to Intercostal Keelson Angle Irons Double Angle Iron Side Keelson Side Intercostal Plate do. Angle Irons Attached to outside plating with angle iron	16 9 5 5 3 5 3	16 9 5 5 3 5 3	16 9 5 5 3 5 3	16 9 5 5 3 5 3	16 9 5 5 3 5 3	16 9 5 5 3 5 3	16 9 5 5 3 5 3	16 9 5 5 3 5 3
BILGE Angle Irons do. Bulb Iron do. Intercostal plates riveted to plating for length	5 4 9	5 4 9	5 4 9	5 4 9	5 4 9	5 4 9	5 4 9	5 4 9
BILGE STRINGER Angle Irons Intercostal plates riveted to plating for length	5 4 9	5 4 9	5 4 9	5 4 9	5 4 9	5 4 9	5 4 9	5 4 9
SIDE STRINGER Angle Irons	5 4 9	5 4 9	5 4 9	5 4 9	5 4 9	5 4 9	5 4 9	5 4 9
Transoms, material. Knight-heads. Hawse Timbers.	Iron	Iron	Iron	Iron	Iron	Iron	Iron	Iron
Windlass Iron Patent Pall Bitt	none	none	none	none	none	none	none	none

The FRAMES extend in one length from Keel to Gunnwale Riveted through plates with 7/8 in. Rivets, about 7 apart.  
The REVERSED ANGLE IRONS on floors and frames extend across middle line to Hold Beam and to Deck Transoms alternately  
KEELSONS. Are the various lengths of Plates and Angle Irons properly connected? Yes And butts properly shifted? Yes

PLATING. Garboard, double riveted to Keel, with rivets 1/8 in. diameter, averaging 5 1/2 ins. from centre to centre.  
Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 7/8 in. diameter, averaging 4 ins. from centre to centre.  
Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/8 in. diameter averaging 4 ins. from centre to centre.  
Butts of 3 Strakes at Bilge for 1/2 length, treble riveted with Butt Straps 1/6 thicker than the plates they connect.  
Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 7/8 in. diameter, averaging 4 ins. from cr. to cr.  
Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7/8 in. diameter, averaging 4 ins. from cr. to cr.  
Edges of Main Sheerstrake, double or single riveted. Upper Sheerstrake, double or single riveted. Double  
Butts of Main Sheerstrake, treble riveted for — length amidships. Butts of Upper or Spar Sheerstrake, treble riveted 1/2 length amidships.  
Butts of Main Stringer Plate, treble riveted for — length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for 1/2 length.  
Breadth of laps of plating in double riveting 5 1/4 Breadth of laps of plating in single riveting none

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Double & Treble  
Waterway, how secured to Beams — (Explain by Sketch, if necessary.)  
Transoms of the various Decks, how secured to the sides? By Bulb plate knees No. of Breasthooks, 7 Crutches, 7  
Description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Good  
Manufacturer's name or trade mark, Palmer Sarnow & Cleveland & Best  
The above is a correct description.  
Signature, W. A. Potter & Co Surveyor's Signature, W. B. Darcy

IRON 457-0164

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**Workmanship.**

Are the butts of plating planed or otherwise fitted? Planed 12680. Fran.  
 Do the edges of the carvel work and of the butts lay close together throughout their length without requiring any making good of deficiencies? Yes  
 Are the fillings between the ribs and plates solid single pieces? Single single pieces  
 Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? Yes  
 Are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? Yes  
 Do any rivets break into or through the seams or butts of the plating? but few

Masts, Bowsprit, Yards, &c., are partly iron in Good condition, and sufficient in size and length. If of Iron or Steel give Scantlings of Plating, Angle Irons, &c., and further explain by a Sketch showing how the lower Masts and Bowsprit are constructed, showing the number of Plates and Angle Irons, mode of riveting, quality of Materials, and if stamped with Maker's name.

State also Length and Diameter of Lower Masts and Bowsprit Fore mast 79' 8" - Main 81' 3" - top 30" Mizzen 73' x 24" Bowsprit 74'  
Mast & Bowsprit plates 6x5 with 4 angle bars 4x3x7/16 - Fore and main Yards 80' x 19" Plates 6x4 with 3 angle bars 3x3x7/16. Fore & main lower topsail Yards 68' x 16" Plates 6x4 with 3 angle bars 3x3x7/16  
Cross Deck Yard 62' x 15" Plates 5x3 with 3 angle bars 2x2x7/16. Mizzen lower topsail Yard 52' x 12"  
Plates and Angles as Class Book - Butts of masts table riveted at decks. double above  
Bowsprit double at knightheads. Yards double at slugs

NUMBER for EQUIPMENT 18951		Fathoms.	Inches.	Test per Certificate.	Lngh. & Size req'd pr Rule	Test req'd per Rule.	ANCHORS, &c.	N <sup>o</sup> .	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
N <sup>o</sup> .	SAILS.	CABLES, &c.										
2	Fore Sails,	240	1 13/16	59 1/2 and 82. 14. 3	270. 13 1/16	59 1/2	Bowers	1396	32. 1. 24	30. 10. 0	32	30 3/20
	Fore Top Sails,							1398	32. 1. 6	30. 7. 0	32	30 3/20
	Fore Topmast Stay Sails	90	11		510		Stream	1397	28. 0. 22	27. 6. 0	27 1/4	27
	Main Sails,	90	6		90 1/2		Kedges		13. 1. 13		13. 0. 0	
	Main Top Sails,	90	9		90 1/2				6. 2. 0		6. 2. 0	
	and								3. 1. 9		3. 1. 0	

Standing and Running Rigging Wire & Hemp sufficient in size and Good quality. She has 2 life Long Boat Sails Runace & Sig  
 The Windlass is Harford Patent Capstans Good and Rudder Good Pumps 2 main & 2 bilge

Engine Room Skylights.—How constructed? — How secured in ordinary weather? —  
 What arrangements for deadlights in bad weather? —  
 Coal Bunker Openings.—How constructed? — How are lids secured? — Height above deck? —  
 Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? —

Cargo Hatchways.—How formed? Iron framing as per Section  
 State size Main Hatch 15ft 6" x 10ft 6" Forehatch 6ft x 6ft Quarterhatch 7ft 6" x 5ft  
 If of extraordinary size, state how framed and secured? —  
 What arrangement for shifting beams? Plate Beam with double angle bars  
 Hatches, If strong and efficient? Strong & Efficient

Order for Special Survey No. <u>573</u>	DATES of Surveys held while building as per Section 18.	1st. On the several parts of the frame, when in place, and before the plating was wrought	} <u>Special Survey</u>
Date <u>23 April 1874</u>		2nd. On the plating during the process of riveting	
Order for Ordinary Survey No. <u>—</u>		3rd. When the beams were in and fastened, and before the decks were laid....	
Date <u>—</u>		4th. When the ship was complete, and before the plating was finally coated or cemented..	
No. <u>—</u> in builder's yard.		5th. After the ship was launched and equipped	

General Remarks, (State quality of workmanship &c.) This vessel is well built. The plating much in excess of the Rules as will be seen by accompanying measurement section - The figures in Red denoting requirements per Rule.  
She has a Poop and Forecastle length of Poop 54ft. length of Forecastle 32ft (Tracing attached)

State if one, two or three decked vessel, or if spar or awning decked, and lengths of poop, fore-castle or raised quarter deck, or of double or part double bottom.  
 How are the surfaces preserved from oxidation? Inside Cement & Paint Outside Paint

I am of opinion this Vessel should be Classed 100 A 1  
 The amount of the Entry Fee ... £ 5 : - : - is received by me,  
May 1874 Special ... £ 56 : 4 : 6 19/5/1874  
 Certificate ... Gratis  
 (Travelling Expenses) (if any) £ —  
 Committee's Minute Liverpool 19th May 1874  
 Character assigned 100 A 1 - Built under special survey (A & C.P.) - Com. 74 - J.B.L.

Will B. Davy  
 This vessel appears to be fitted for classed 100 A 1 as recommended A.O.P. Com 74  
 Lloyd's Register Foundation